



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

MAR 04 2019

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED 7009 2820 0001 8284 4614
AND E-MAIL – pmbork@dow.com

Mr. Paul Bork
Lead Counsel
The Dow Chemical Company
332 SH 332 E
Lake Jackson, Texas 77566

Re: Consent Agreement and Final Order – The Dow Chemical Company, Docket No.
CAA-06-2018-3317

Dear Mr. Bork:

Enclosed is a copy of a fully executed Consent Agreement and Final Order (CAFO) for The Dow Chemical Company (Dow). As provided in the CAFO, Dow will have thirty (30) days from the effective date of the CAFO to pay the civil penalty of \$260,349. If you have any questions, please feel free to contact Evan L. Pearson, Senior Enforcement Counsel, by phone at (214) 665-8074, or via e-mail at pearson.evan@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to be "Cheryl T. Seager", with a long horizontal line extending to the right.

Cheryl T. Seager
Director
Compliance Assurance and
Enforcement Division
Region 6

Enclosure

cc: Michael De La Cruz, Manager
Air Enforcement Section
Enforcement Division, Office of Compliance & Enforcement
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 7811-3087
Michael.delacruz@tceq.texas.gov

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 6
DALLAS, TEXAS

FILED
2019 MAR -4 PM 3:13
REGIONAL HEARING CLERK
EPA REGION VI

IN THE MATTER OF:)

THE DOW CHEMICAL COMPANY)
FREEPORT, TEXAS)

RESPONDENT)
_____)

DOCKET NO. CAA-06-2018-3317

CONSENT AGREEMENT AND FINAL ORDER

The Director of the Compliance Assurance and Enforcement Division of the United States Environmental Protection Agency (EPA), Region 6 (Complainant) and The Dow Chemical Company (Respondent) in the above-referenced proceeding, hereby agree to resolve this matter through the issuance of this Consent Agreement and Final Order (CAFO).

I. PRELIMINARY STATEMENT

1. This proceeding for the assessment of civil penalties is brought by EPA pursuant to Section 113(d) of the Clean Air Act (CAA), 42 U.S.C. § 7413(d), and is simultaneously commenced and concluded through the issuance of this CAFO pursuant to 40 C.F.R. §§ 22.13(b), 22.18(b)(2) and (3), and 22.34.

2. For the purposes of this proceeding, the Respondent admits the jurisdictional allegations contained herein; however, the Respondent neither admits nor denies the specific factual allegations contained in this CAFO.

3. The Respondent explicitly waives any right to contest the allegations and its right to appeal the proposed Final Order set forth therein and waives all defenses which have been raised or could have been raised to the claims set forth in this CAFO.

4. Compliance with all the terms and conditions of this CAFO shall only resolve the Respondent's liability for Federal civil penalties for those violations and facts which are set forth herein.

5. The Respondent consents to the issuance of this CAFO, to the assessment and payment of the civil penalty in the amount and by the method set forth in this CAFO, and to the conditions specified in this CAFO.

6. Each undersigned representative of the parties to this agreement certifies that he or she is fully authorized by the party represented to enter into the terms and conditions of this agreement, to execute it, and to legally bind that party to it.

7. This CAFO shall apply to and be binding upon the Respondent, its officers, directors, servants, employees, agents, authorized representatives, successors and assigns.

II. FINDINGS OF FACT AND CONCLUSIONS OF LAW

A. PRELIMINARY ALLEGATIONS

8. The Dow Chemical Company (Respondent) is a Delaware corporation authorized to do business in the State of Texas.

9. "Person" is defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e), as "an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency of the United States and any officer, agent, or employee thereof."

10. The Respondent is a "person" as defined by Section 302(e) of the CAA, 42 U.S.C. § 7602(e).

11. The Respondent operates a manufacturing facility located at 2301 North Brazosport Boulevard, Freeport, Texas 77541-3257.

12. "Stationary source" is defined by Section 112(r)(2)(C) of the CAA, 42 U.S.C.

§ 7412(r)(2)(C), and 40 C.F.R. § 68.3 as meaning:

any buildings, structures, equipment, installations or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental release may occur.

13. The Respondent's facility identified in Paragraph 11 is a "stationary source" as that term is defined by Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C), and 40 C.F.R. § 68.3.

14. The Respondent is the owner and/or operator of the stationary source identified in Paragraph 11.

15. The following substances are each a "regulated substance", as set forth in 40 C.F.R. § 68.130:

- A. Ethylene oxide [Oxirane];
- B. Methane;
- C. Hydrogen;
- D. 1,3-Butadiene;
- E. Propane;
- F. Isopropyl chloride [Propane, 2-chloro-];
- G. Ammonia (anhydrous);
- H. 2-Butene;
- I. Acrylonitrile [2-Propenenitrile];
- J. Propylene oxide [Oxirane, methyl-];
- K. 1-Chloropropylene [1-Propene, 1-chloro-];
- L. Epichlorohydrine [Oxirane, (chloromethyl)-];
- M. Sulfur dioxide (anhydrous);
- N. Butane;
- O. 2-Chloropropylene [1-Propene, 2-chloro-];
- P. Trimethylamine [Methanamine, N-N-dimethyl-];
- Q. Isobutane;
- R. Ammonia (conc 20% or greater);
- S. Hydrogen chloride (anhydrous) [Hydrochloric acid];
- T. Chlorine;
- U. Ethylenediamine [1,2-Ethanediamine];
- V. Vinyl chloride [Ethene, chloro-];
- W. Propylene [1-Propene];
- X. 2-Butene;

- Y. Ethylene [Ethene];
- Z. Ethane;
- AA. Methyl ether [Methane, oxybis-];
- BB. Methyl chloride [Methane, chloro-];
- CC. Methylamine [Methanamine];
- DD. Propyne [1-Propyne];
- EE. 1-Butene;
- FF. Formaldehyde (solution);
- GG. Isoprene [1,3-Butadiene, 2-methyl-];
- HH. Vinylidene chloride [Ethene, 1,1-dichloro-];
- II. 2-Methylpropene [1-Propene, 2-methyl-];
- JJ. Phosgene [Carbonic dichloride];
- KK. Isopropyl chloride [Propane, 2-chloro-]; and
- LL. Pentane.

16. "Process" is defined in 40 C.F.R. § 68.3 as meaning

any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of activities. For the purpose of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.

17. The Respondent has the following processes at the stationary source identified in

Paragraph 11:

- A. B38 Plastics Pilot Plants (ICR);
- B. OC Unit 4 PDH-1;
- C. A-36 PMDI;
- D. B-34 SOHO RCI Storage;
- E. B-75 Propylene Oxide Finishing;
- F. B-46 Urethane Specialties;
- G. A-26 Versene;
- H. B-44 Voranol;
- I. B-66 Quat Derivatives;
- J. OC6 – LHC 8;
- K. Ind Gas – Methane & H₂;
- L. Salt Dome Operation;
- M. A-40 Terminal Operations;
- N. A-35 Marine Operations;
- O. B41 Polyethylene 4;
- P. B-8 Thermal Oxidizer;
- Q. B-35 WWTP;
- R. LHC Distribution;

- S. Industrial Gas – Ammonia;
- T. B33 Rotary Kiln;
- U. Land Tran Storage;
- V. Glycol B;
- W. B-13 Polyglycol Amines;
- X. B-39 Epoxy 5 GMA;
- Y. EO Distribution;
- Z. A-3200 Picloram/DCP;
- AA. PDC Hydro;
- BB. B-72 LHC 7;
- CC. B43 IPG Plant (ICR);
- DD. Power 9 (ICR);
- EE. B6800 APDC (ICR);
- FF. B38 Market Dev Semi Plant (ICR);
- GG. B17 PGE (ICR);
- HH. B27 Poly 3 (ICR);
- II. B9300 Poly 5 & 6: and
- JJ. OC-200 LHC9.

18. 40 C.F.R. § 68.130 specifies the following threshold quantities for the regulated substances listed below:

- A. Ethylene oxide [Oxirane] – 10,000 pounds;
- B. Methane – 10,000 pounds;
- C. Hydrogen – 10,000 pounds;
- D. 1,3-Butadiene – 10,000 pounds;
- E. Propane– 10,000 pounds;
- F. Isopropyl chloride [Propane, 2-chloro-] – 10,000 pounds;
- G. Ammonia (anhydrous) – 10,000 pounds;
- H. 2-Butene – 10,000 pounds;
- I. Acrylonitrile [2-Propenenitrile] – 20,000 pounds;
- J. Propylene oxide [Oxirane, methyl-] – 10,000 pounds;
- K. 1-Chloropropylene [1-Propene, 1-chloro-] – 10,000 pounds;
- L. Epichlorohydrine [Oxirane, (chloromethyl)-] – 20,000 pounds;
- M. Sulfur dioxide (anhydrous) – 5,000 pounds;
- N. Butane– 10,000 pounds;
- O. 2-Chloropropylene [1-Propene, 2-chloro-]– 10,000 pounds;
- P. Trimethylamine [Methanamine, N-N-dimethyl-] – 10,000 pounds;
- Q. Isobutane – 10,000 pounds;
- R. Ammonia (conc 20% or greater) – 20,000 pounds;
- S. Hydrogen chloride (anhydrous) [Hydrochloric acid] – 10,000 pounds;
- T. Chlorine – 10,000 pounds;
- U. Ethylenediamine [1,2-Ethanediamine] – 10,000 pounds;
- V. Vinyl chloride [Ethene, chloro-] – 10,000 pounds;

- W. Propylene [1-Propene] – 10,000 pounds;
- X. 2-Butene – 10,000 pounds;
- Y. Ethylene [Ethene] – 10,000 pounds;
- Z. Ethane – 10,000 pounds;
- AA. Methyl ether [Methane, oxybis-] – 10,000 pounds;
- BB. Methyl chloride [Methane, chloro-] – 10,000 pounds;
- CC. Methylamine [Methanamine] – 10,000 pounds;
- DD. Propyne [1-Propyne] – 10,000 pounds;
- EE. 1-Butene – 10,000 pounds;
- FF. Formaldehyde (solution) – 15,000 pounds;
- GG. Isoprene [1,3-Butadiene, 2-methyl-] – 10,000 pounds;
- HH. Vinylidene chloride [Ethene, 1,1-dichloro-] – 10,000 pounds;
- II. 2-Methylpropene [1-Propene, 2-methyl-] – 10,000 pounds;
- JJ. Phosgene [Carbonic dichloride] – 500 pounds;
- KK. Isopropyl chloride [Propane, 2-chloro-] – 10,000 pounds; and
- LL. Pentane – 10,000 pounds.

19. The Respondent has exceeded the threshold quantity for one or more of the regulated substances listed in Paragraph 15 at each of the processes identified in Paragraphs 17.

20. 40 C.F.R. § 68.130 specifies the following threshold quantities for the flammable regulated substances listed below:

- A. Ethane – 10,000 pounds; and
- B. Propane – 10,000 pounds.

21. 40 C.F.R. § 68.115(b)(2) provides that if the concentration of a regulated flammable substance is one percent or greater by weight of the mixture, then, for the purposes of determining whether a threshold quantity is present at the stationary source, the entire weight of the mixture shall be treated as the regulated substance unless the owner or operator can demonstrate that the mixture itself does not have a National Fire Protection Association flammability hazard rating of 4.

22. The concentration of the regulated flammable substances listed in Paragraph 20 is one percent or greater by weight in a flammable mixture at the Salt Dome Operation process.

23. “Covered process” is defined in 40 C.F.R. § 68.3 as meaning “a process that has a regulated substance present in more than a threshold quantity as determined under § 68.115.”

24. Each of the processes identified in Paragraph 17 is a “covered process” as that term is defined by 40 C.F.R. § 68.3.

25. The covered processes identified in Paragraphs 17 and 22 are subject to the “Program 3” requirements of the Risk Management Plan (RMP) regulations and must, among other things, comply with the Program 3 Prevention Program of 40 C.F.R. Part 68, Subpart D.

26. Section 113(d)(1) of the CAA, 42 U.S.C. § 7413(d), authorizes EPA to bring an administrative action for penalties that exceed \$369,532¹ and/or the first alleged date of violation occurred more than twelve (12) months prior to the initiation of the action, if the Administrator and the United States Attorney General jointly determine that the matter is appropriate for administrative action.

27. EPA and the U.S. Department of Justice have jointly determined that the Complainant can administratively assess a civil penalty even though the penalty exceeds the statutory amount and the alleged violations have occurred more than twelve (12) months prior to the initiation of the administrative action.

28. On or about January 25 – 29, 2016, representatives of EPA conducted an inspection of the Respondent’s facility.

¹ The maximum penalty that can be assessed (without a waiver) under Section 113 of the Clean Air Act was increased by the Civil Monetary Penalty Inflation Adjustment Rule codified at 40 C.F.R. Part 19 to \$369,532.

29. On or about November 22, 2017, EPA issued a CAA Section 114 Information Request Letter (Information Request) to the Respondent pursuant to Section 114 of the CAA, 42 U.S.C. § 7414.

30. On or about January 4, 2018, February 8, 2018, and February 22, 2018, the Respondent submitted its responses to the Information Request.

B. VIOLATIONS

Count One – Failure to Assure that All Considerations Were Addressed Prior to Startup of the Monomer Tank Shortstop System

31. 40 C.F.R. § 68.75 provides the following:

(a) The owner or operator shall establish and implement written procedures to manage changes (except for “replacements in kind”) to process chemicals, technology, equipment, and procedures; and, changes to stationary sources that affect a covered process.

(b) The procedures shall assure that the following considerations are addressed prior to any change:

- (1) The technical basis for the proposed change;
- (2) Impact of change on safety and health;
- (3) Modifications to operating procedures;
- (4) Necessary time period for the change; and,
- (5) Authorization requirements for the proposed change

(c) Employees involved in operating a process and maintenance and contract employees whose job tasks will be affected by a change in the process shall be informed of, and trained in, the change prior to start-up of the process or affected part of the process.

(d) If a change covered by this paragraph results in a change in the process safety information required by 40 C.F.R. § 68.65, such information shall be updated accordingly.

32. 40 C.F.R. § 68.65(d)(1)(ii) provides that piping and instrument diagrams (P&IDs) are required process safety information.

33. On or about July 9, 2015, the Respondent created a management of change (MOC) for the Monomer Tank Shortstop System (D-801 Shortstop System) (MOC 3082015070009).

34. The Monomer Tank Shortstop System is part of the B-39 Epoxy 5 GMA Process.

35. The B-39 Epoxy 5 GMA Process is a “covered process” as that term is defined by 40 C.F.R. § 68.3.

36. The installation of the Monomer Tank Shortstop System included the installation of a new piping system.

37. The Monomer Tank Shortstop System was started up on or about October 15, 2015.

38. The P&IDs required by MOC 30820150700009 were not completed until February 25, 2016.

39. MOC 30820150700009 required the development of a waste disposal plan.

40. The development of a waste disposal plan was required in order to manage the disposal of material generated from the use of the inhibitor in the event of an unintended polymerization reaction.

41. The waste disposal plan was not developed until January 15, 2016.

42. Therefore, the Respondent violated 40 C.F.R. § 68.75(d) by failing to timely draft certain P&IDs, and by failing to timely develop a waste disposal plan, as required by the MOC for the Monomer Tank Shortstop System.

Count Two – Failure to Timely Conduct Training Prior to Startup of the Monomer Tank Shortstop System.

43. 40 C.F.R. § 68.75 provides the following:

(a) The owner or operator shall establish and implement written procedures to manage changes (except for “replacements in kind”) to process chemicals, technology, equipment, and procedures; and, changes to stationary sources that affect a covered process.

(b) The procedures shall assure that the following considerations are addressed prior to any change:

- (1) The technical basis for the proposed change;
- (2) Impact of change on safety and health;
- (3) Modifications to operating procedures;
- (4) Necessary time period for the change; and,
- (5) Authorization requirements for the proposed change

(c) Employees involved in operating a process and maintenance and contract employees whose job tasks will be affected by a change in the process shall be informed of, and trained in, the change prior to start-up of the process or affected part of the process.

44. On or about July 9, 2015, the Respondent created a management of change (MOC) for the Monomer Tank Shortstop System (D-801 Shortstop System) (MOC 3082015070009).

45. The Monomer Tank Shortstop System is part of the B-39 Epoxy 5 GMA Process.

46. The B-39 Epoxy 5 GMA Process is a “covered process” as that term is defined by 40 C.F.R. § 68.3.

47. Training was required by MOC 3082015070009.

48. The Monomer Tank Shortstop System was started up on or about October 15, 2015.

49. Three individuals first worked after startup of the Monomer Tank Shortstop System and Respondent’s records show they completed the training required by MOC 3082105070009 on the dates indicated below:

Individuals	Date Worked	Date Trained
Individual 1	October 16, 2015	October 22, 2015
Individual 2	October 16, 2015	October 18, 2015
Individual 3	October 22, 2015	October 26, 2015

50. Therefore, the Respondent violated 40 C.F.R. § 68.75(c) by failing to document training of certain individuals prior to startup of the Monomer Tank Shortstop System.

Count Three – Failure to Conduct Mechanical Integrity Inspection of Certain Piping

51. 40 C.F.R. § 68.73(a) provides that the requirements of 40 C.F.R. § 68.73(d) applies to the following process equipment:

- (1) Pressure vessels and storage tanks;
- (2) Piping systems (including piping components and valves);
- (3) Relief and vent systems and devices;
- (4) Emergency shutdown systems;
- (5) Controls (including monitoring devices and sensors, alarms, and interlocks); and
- (6) Pumps.

52. 40 C.F.R. § 68.73(b) provides that the owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.

53. 40 C.F.R. § 68.73(d) provides the following:

- (1) Inspections and tests shall be performed on process equipment.
- (2) Inspection and testing procedures shall follow recognized and generally acceptable good engineering practices.
- (3) The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience.
- (4) The owner or operator shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

54. D-216, Piping P-26707 24" ER33 (located on the top of T-217), and T-217 contain epichlorohydrin.

55. Epichlorohydrin is a "regulated substance" as set forth in 40 C.F.R. § 68.130.

56. The equipment identified in Paragraph 54 is interconnected with each other and with other equipment that together contain epichlorohydrin in an amount greater than 20,000 pounds.

57. The equipment identified in Paragraph 54 is part of the B-39 Epoxy 5 GMA Process.

58. The B-39 Epoxy 5 GMA Process is a "covered process" as that term is defined by 40 C.F.R. § 68.3.

59. Piping P-26707 24" ER33 is subject to the mechanical integrity inspection requirements of 40 C.F.R. § 68.73.

60. Question 40.A of the Complainant's November 22, 2017 Information Request requested mechanical integrity inspection records for Piping P-26707 24" ER33.

61. The Respondent failed to submit mechanical integrity inspection records for Piping P-26707 24" ER33.

62. The Respondent failed to conduct mechanical integrity inspections of Piping P-26707-24" ER33.

63. Therefore, the Respondent violated 40 C.F.R. § 68.73(d) by failing to conduct mechanical integrity inspections of Piping P-26707 24" ER33.

Count Four – Failure to Conduct Mechanical Integrity Inspections

64. 40 C.F.R. § 68.73(a) provides that the requirements of 40 C.F.R. § 68.73(d) applies to the following process equipment:

- A. Pressure vessels and storage tanks;
- B. Piping systems (including piping components and valves);
- C. Relief and vent systems and devices;
- D. Emergency shutdown systems;
- E. Controls (including monitoring devices and sensors, alarms, and interlocks); and
- F. Pumps.

65. 40 C.F.R. § 68.73(b) provides that the owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.

66. 40 C.F.R. § 68.73(d) provides the following:

- (1) Inspections and tests shall be performed on process equipment.
- (2) Inspection and testing procedures shall follow recognized and generally acceptable good engineering practices.
- (3) The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience.
- (4) The owner or operator shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was

performed, a description of the inspection or test performed, and the results of the inspection or test.

67. T-217 contains epichlorohydrin.

68. Epichlorohydrin is a “regulated substance” as set forth in 40 C.F.R. § 68.130.

69. The equipment identified in Paragraph 67 is interconnected with each other and with other equipment that together contain epichlorohydrin in an amount greater than 20,000 pounds.

70. T-217 is part of the B-39 Epoxy 5 GMA Process.

71. The B-39 Epoxy 5 GMA Process is a “covered process” as that term is defined by 40 C.F.R. § 68.3.

72. T-217 is subject to the mechanical integrity inspection requirements of 40 C.F.R. § 68.73.

73. Thickness Measurement Location (TML) Numbers 1.01, 2.01, 3.01, 4.01, 5.01, 6.01, 7.01, 8.01, 9.01, 10.01, 10.02, 10.03, 10.04, 10.05, and 10.06 were inspected on May 14, 2008.

74. TML Numbers 1.01, 2.01, 3.01, 4.01, 5.01, 6.01, 7.01, 8.01, 9.01, 10.01, 10.02, 10.03, 10.04, 10.05, and 10.06 were due to be inspected on May 14, 2013.

75. TML Numbers 1.01, 2.01 (2.03)², 3.01 (3.03), 4.01 (4.02), 5.01 (5.03), 6.01 (7.01), 8.01 (9.03), 10.01 (11.01), 10.02 (11.02), 10.03 (11.0), and 10.04 (11.04) were not inspected until November 24, 2015.

76. TML Numbers 6.01, 6.02, 6.03, and 6.04 were due to have TML inspections on March 13, 2016.

² The Respondent changed the numbering of certain TMLs for the November 24, 2015 inspection. The numbers in parentheses represent the corresponding numbers from the November 24, 2015 inspection to the May 14, 2008 inspection.

77. As of the date of the November 22, 2017 Information Request, TML Numbers 6.01, 6.02, 6.03, and 6.04 have not been inspected.

78. Therefore, the Respondent violated 40 C.F.R. § 68.73(d) by failing to conduct certain mechanical integrity inspections.

Count Five – Failure to Conduct Mechanical Integrity Inspections

79. 40 C.F.R. § 68.73(a) provides that the requirements of 40 C.F.R. § 68.73(d) applies to the following process equipment:

- (1) Pressure vessels and storage tanks;
- (2) Piping systems (including piping components and valves);
- (3) Relief and vent systems and devices;
- (4) Emergency shutdown systems;
- (5) Controls (including monitoring devices and sensors, alarms, and interlocks); and
- (6) Pumps.

80. 40 C.F.R. § 68.73(b) provides that the owner or operator shall establish and implement written procedures to maintain the on-going integrity of process equipment.

81. 40 C.F.R. § 68.73(d) provides the following:

- (1) Inspections and tests shall be performed on process equipment.
- (2) Inspection and testing procedures shall follow recognized and generally acceptable good engineering practices.
- (3) The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience.
- (4) The owner or operator shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

82. On or about August 30, 2016, a leak from process piping at the Light Hydrocarbon 8 Unit (OC6-LHC 8 process) occurred.

83. The leak lasted for 10½ hours.

84. The following regulated substances and the amount of the regulated substances released as a result of the leak in the process piping are set forth below:

- A. Butane – 8.77 pounds;
- B. Ethane – 0.45 pounds;
- C. 1-Butene – 26.19 pounds;
- D. 2-Methylpropene [1-Propene, 2-methyl-] (Isobutylene) – 21.73 pounds;
- E. 1-Pentane – 61.81 pounds;
- F. Propane – 49.09 pounds;
- G. Isobutane – 1.28 pounds;
- H. Propylene – 66.21 pounds; and
- I. 1,3-Butadiene – 105.61 pounds.

85. Each of the substances identified in Paragraph 84 is a “regulated substance” as set forth in 40 C.F.R. § 68.130.

86. Light Hydrocarbon 8 (OC6-LHC 8) is a “covered process” as that term is defined by 40 C.F.R. § 68.3.

87. The process piping identified in Paragraph 82 is subject to the mechanical integrity requirements of 40 C.F.R. § 68.73.

88. The process piping identified in Paragraph 82 had never been inspected pursuant to 40 C.F.R. § 68.73(d) prior to August 30, 2016.

89. Therefore, the Respondent violated 40 C.F.R. § 68.73(d) by failing to conduct mechanical integrity inspections on certain process piping at the Light Hydrocarbon 8 Unit (OC6 LHC 8 process).

Count Six – Inadequate Employee Participation Plan

90. 40 C.F.R. § 68.83(a) provides that the owner or operator shall develop a written plan of action regarding the implementation of the employee participation required by this section.

91. Question 46 of the Complainant’s November 22, 2017 Information Request asked the Respondent to provide a copy of “Dow’s written plan of action regarding the implementation

of employee participation as required by 40 C.F.R. § 68.83.

92. The Respondent responded on January 4, 2018, stating the following:

Dow's written plan of action regarding the implementation of employee participation as required by 40 C.F.R. § 68.83 provides the following:

“B. Organizational and Individual Expectation Requirements

3. Employee Participation: Organizations must provide opportunities for personnel to participate in developing, implementing, and reviewing Health and Safety Programs.”

Examples of these Health and Safety programs include: Training needs assessment, Procedure development/review, MOC, and Plant teams.

93. The response by the Respondent failed to provide an adequate written plan of action regarding the implementation of employee participation as required by 40 C.F.R. § 68.83.

94. Therefore, the Respondent violated 40 C.F.R. § 68.83(a) and failing to develop an adequate employee participation plan.

III. TERMS OF SETTLEMENT

A. CIVIL PENALTY

95. For the reasons set forth above, the Respondent has agreed to pay a civil penalty of **TWO HUNDRED SIXTY THOUSAND, THREE HUNDRED FORTY-NINE DOLLARS (\$260,349).**

96. Within thirty (30) days of the effective date of this CAFO, the Respondent shall pay the assessed civil penalty by certified check, cashier's check, or wire transfer, made payable to "Treasurer, United States of America, EPA - Region 6". Payment shall be remitted in one of three (3) ways: regular U.S. Postal mail (including certified mail), overnight mail, or wire transfer. For regular U.S. Postal mail, U.S. Postal Service certified mail, or U.S. Postal Service express mail, the check should be remitted to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, MO 63197-9000

For overnight mail (non-U.S. Postal Service, e.g. Fed Ex), the check should be remitted to:

U.S. Bank
Government Lockbox 979077
US EPA Fines & Penalties
1005 Convention Plaza
SL-MO-C2-GL
St. Louis, MO 63101
Phone No. (314) 418-1028

For wire transfer, the payment should be remitted to:

Federal Reserve Bank of New York
ABA: 021030004
Account No. 68010727
SWIFT address = FRNYUS33
33 Liberty Street
New York, NY 10045
Field Tag 4200 of the Fedwire message should read
"D 68010727 Environmental Protection Agency" with a phone number of
(412) 234-4381".

PLEASE NOTE: Docket Number CAA-06-2018-3317 shall be clearly typed on the check or other method of payment to ensure proper credit. If payment is made by check, the check shall also be accompanied by a transmittal letter and shall reference the Respondent's name and address, the case name, and docket number of the CAFO. If payment is made by wire transfer, the wire transfer instructions shall reference the Respondent's name and address, the case name, and docket number of the CAFO. The Respondent shall also send a simultaneous notice of such payment, including a copy of the check and transmittal letter, or wire transfer instructions to the following:

Carlos Flores
Enforcement Officer
Chemical Accident Prevention Section (6EN-AS)
U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Lorena Vaughn
Regional Hearing Clerk (6RC-D)
U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

The Respondent's adherence to this request will ensure proper credit is given when penalties are received in the Region.

97. The Respondent agrees not to claim or attempt to claim a federal income tax deduction or credit covering all or any part of the civil penalty paid to the United States Treasurer.

98. If the Respondent fails to submit payment within thirty (30) days of the effective date of this CAFO, the Respondent may be subject to a civil action to collect any unpaid portion of the assessed penalty, together with interest, handling charges, and nonpayment penalties as set forth below.

99. Pursuant to 31 U.S.C. § 3717 and 40 C.F.R. § 13.11, unless otherwise prohibited by law, EPA will assess interest and late payment penalties on outstanding debts owed to the United States and a charge to cover the costs of processing and handling a delinquent claim. Interest on the civil penalty assessed in this CAFO will begin to accrue thirty (30) days after the effective date of the CAFO and will be recovered by EPA on any amount of the civil penalty that is not paid by the respective due date. Interest will be assessed at the rate of the United States Treasury tax and loan rate in accordance with 40 C.F.R. § 13.11(a). Moreover, the costs of the Agency's administrative handling of overdue debts will be charged and assessed monthly throughout the period the debt is overdue. *See* 40 C.F.R. § 13.11(b).

100. EPA will also assess a \$15.00 administrative handling charge for administrative costs on unpaid penalties for the first thirty (30) day period after the payment is due and an additional \$15.00 for each subsequent thirty (30) day period that the penalty remains unpaid. In addition, a penalty charge of up to six percent (6%) per year will be assessed monthly on any portion of the debt which remains delinquent more than ninety (90) days. *See* 40 C.F.R. § 13.11(c). Should a penalty charge on the debt be required, it shall accrue from the first day

payment is delinquent. *See* 31 C.F.R. § 901.9(d). Other penalties for failure to make a payment may also apply.

101. Pursuant to Section 113(d)(5) of the CAA, 42 U.S.C. § 7413(d)(5), any person who fails to pay on a timely basis a civil penalty ordered or assessed under this section shall be required to pay, in addition to such penalty and interest, the United States enforcement expenses, including but not limited to, attorneys fees and costs incurred by the United States for collection proceedings, and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be ten percent (10%) of the aggregate amount of such person's outstanding penalties and nonpayment penalties accrued as of the beginning of each quarter.

102. This CAFO is considered a "prior violation" for the purpose of demonstrating a "history of noncompliance" under the CAA Stationary Source Penalty Policy, and the Combined Enforcement Policy for CAA Sections 112(r)(1), 112(r)(7), and 40 C.F.R. Part 68 (June 2012).

B. NOTIFICATION

103. Unless otherwise specified elsewhere in this CAFO, whenever notice is required to be given, whenever a report or other document is required to be forwarded by one party to another, or whenever a submission or demonstration is required to be made, it shall be directed to the individuals specified below at the addresses given (in addition to any action specified by law or regulation), unless these individuals or their successors give notice in writing to the other party that another individual has been designated to receive the communication:

Complainant:

Carlos Flores
Enforcement Officer
Chemical Accident Prevention Section (6EN-AS)
U.S. EPA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Respondent:

Fran Falcon
Texas Regional Environmental Leader
The Dow Chemical Company
332 SH 332 E
Lake Jackson, TX 77566
with a copy to:

Paul Bork
Lead Counsel
The Dow Chemical Company
332 SH 332 E
Lake Jackson, TX 77566

C. COMPLIANCE

104. The Respondent hereby certifies that as of the date of the execution of this CAFO, that it has corrected the violations alleged herein, and is now, to the best of its knowledge, in compliance with all applicable requirements of Section 112(r) of the CAA, 42 U.S.C. § 7412(r) and 40 C.F.R. Part 68.

D. MODIFICATION

105. The terms, conditions, and compliance requirements of this CAFO may not be modified or amended except as otherwise specified in this CAFO, or upon the written agreement of the Complainant and the Respondent, approved by the Regional Judicial Officer, and such modification or amendment being filed with the Regional Hearing Clerk.

E. RETENTION OF ENFORCEMENT RIGHTS

106. EPA does not waive any rights or remedies available to EPA for any other violations by the Respondent of Federal or State laws, regulations, or permitting conditions.

107. Nothing in this CAFO shall relieve the Respondent of the duty to comply with Section 112(r) of the CAA, 42 U.S.C. § 7412(r), and 40 C.F.R. Part 68.

108. Nothing in this CAFO shall limit the power and authority of EPA or the United States to take, direct, or order all actions to protect public health, welfare, or the environment, or prevent, abate or minimize an actual or threatened release of hazardous substances, pollutants, contaminants, hazardous substances on, at or from the Respondent's facility whether related to the violations addressed in this CAFO or otherwise. Furthermore, nothing in this CAFO shall be construed or to prevent or limit EPA's civil and criminal authorities, or that of other Federal, State, or local agencies or departments to obtain penalties or injunctive relief under other Federal, State, or local laws or regulations.

109. The Complainant reserves all legal and equitable remedies available to enforce the provisions of this CAFO. In any such action to enforce the provisions of this CAFO, the Respondent shall not assert, and may not maintain, any defense of laches, statute of limitations, or any other equitable defense based on the passage of time. This CAFO shall not be construed to limit the rights of the EPA or United States to obtain penalties or injunctive relief under the CAA or its implementing regulations, or under other federal or state laws, regulations, or permit conditions.

110. In any subsequent administrative or judicial proceeding initiated by the Complainant or the United States for injunctive relief, civil penalties, to enforce the provisions of this CAFO, or other appropriate relief relating to this Facility, the Respondent shall not assert,

and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the Complainant or the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims for civil penalties that have been specifically resolved pursuant to this CAFO.

111. The Respondent waives any right it may possess at law or in equity to challenge the authority of the EPA or the United States to bring a civil action in a United States District Court to compel compliance with this CAFO and to seek an additional penalty for such noncompliance, and agrees that federal law shall govern in any such civil action. The Respondent also consents to personal jurisdiction in any action to enforce this CAFO in the appropriate Federal District Court.

112. The Respondent also waives any and all remedies, claims for relief, and otherwise available rights to judicial or administrative review that the Respondent may have with respect to any issue of law or fact set forth in this CAFO, including any right of judicial review under Section 307(b)(1) of the CAA, 42 U.S.C. § 7607(b)(1).

113. This CAFO is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. The Respondent is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits. The Respondent's compliance with this CAFO shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The Complainant does not warrant or aver in any manner that the Respondent's compliance with any aspect of this CAFO will result in compliance with provisions of the CAA or with any other provisions of Federal, State, or local laws, regulations, or permit.

F. COSTS

114. Except as provided in Paragraph 101, each party shall bear its own costs and attorney's fees. Furthermore, the Respondent specifically waives its right to seek reimbursement of its costs and attorney's fees under 5 U.S.C. § 504 and 40 C.F.R. Part 17.

G. TERMINATION

115. At such time as the Respondent believes it is in compliance with all of the requirements of this CAFO, it may request that EPA concur whether all of the requirements of this CAFO have been satisfied. Such request shall be in writing and shall provide the necessary documentation to establish whether there has been full compliance with the terms and conditions of this CAFO. EPA will respond to said request in writing within ninety (90) days of receipt of the request. This CAFO shall terminate when all actions required to be taken by this CAFO have been completed, and the Respondents have been notified by the EPA in writing that this CAFO has been satisfied and terminated.

H. EFFECTIVE DATE

116. This CAFO, and any subsequent modifications, become effective upon filing with the Regional Hearing Clerk.

**THE UNDERSIGNED PARTIES CONSENT TO THE ENTRY OF THIS CONSENT
AGREEMENT AND FINAL ORDER:**

FOR THE RESPONDENT:

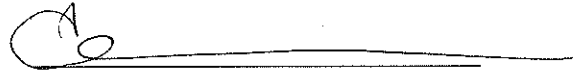
Date: 2-25-19



Fran Falcon
Texas Regional Environmental Leader
The Dow Chemical Company

FOR THE COMPLAINANT:

Date: 2-28-19

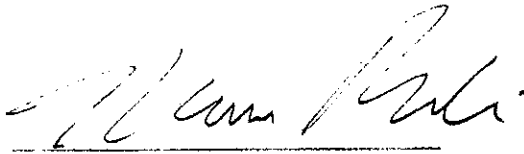
A handwritten signature in black ink, appearing to be "CS", is written over a horizontal line.

Cheryl T. Seager
Director
Compliance Assurance and
Enforcement Division
EPA – Region 6

FINAL ORDER

Pursuant to the Section 113 of the CAA, 42 U.S.C. § 7413, and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, 40 C.F.R. Part 22, the foregoing Consent Agreement is hereby ratified. This Final Order shall not in any case affect the right of EPA or the United States to pursue appropriate injunctive relief or other equitable relief for criminal sanctions for any violations of law. This Final Order shall resolve only those causes of action alleged herein. Nothing in this Final Order shall be construed to waive, extinguish or otherwise affect the Respondent's (or its officers, agents, servants, employees, successors, or assigns) obligation to comply with all applicable federal, state, and local statutes and regulations, including the regulations that were the subject of this action. The Respondent is ordered to comply with the terms of settlement as set forth in the Consent Agreement. Pursuant to 40 C.F.R. § 22.31(b), this Final Order shall become effective upon filing with the Regional Hearing Clerk.

Date: 3/4/19



Thomas Rucki
Regional Judicial Officer

CERTIFICATE OF SERVICE

I hereby certify that on the 4th day of March, 2019, the original and one copy of the foregoing Consent Agreement and Final Order (CAFO) was hand delivered to the Regional Hearing Clerk, U.S. EPA - Region 6, 1445 Ross Avenue, Dallas, Texas 75202-2733, and that a true and correct copy of the CAFO was sent to the following by certified mail, return receipt requested 7009282000182844614:

Paul Bork
Lead Counsel
The Dow Chemical Company
332 SH 332 E
Lake Jackson, TX 77566

